

IN THE CLAIMS:

Please REPLACE claims 1, 7, and 16 in accordance with the following:

Sub D1

1. (AS THREE TIMES AMENDED) A method comprising:

outputting an optical signal having a chirping determined by a chirp parameter to an optical fiber transmission line, including generating said optical signal by optical modulation based on a modulating signal obtained by adding a redundancy code to a transmission data code;

C1

converting the optical signal transmitted by said optical fiber transmission line into an electrical signal;

detecting a bit error of said electrical signal;

controlling said chirp parameter so that said bit error detected is reduced; and

correcting said bit error of said electrical signal according to said redundancy code, wherein said detecting including counting the number of corrections of said bit error obtained in said correcting, and wherein said controlling said chirp parameter based upon comparing between a first number of corrections of said bit error detected when the chirp parameter is set to a positive value and a second number of corrections of said bit error detected when the chirp parameter is set to a negative value.

Sub D1

7. (AS THREE TIMES AMENDED) A system comprising:

first and second terminal devices; and

an optical fiber transmission line connecting said first and second terminal devices;

said first terminal device comprising:

C2

an optical transmitter outputting an optical signal having a chirping determined by a chirp parameter to said optical fiber transmission line, said optical transmitter generating said optical signal by optical modulation based on a modulating signal obtained by adding a redundancy code to a transmission data, and

a control unit controlling said chirp parameter according to a control signal, said control unit correcting said bit error of said electrical signal according to said redundancy code;

said second terminal device comprising:

an optical receiver converting the optical signal transmitted by said optical fiber transmission line into an electrical signal,

a monitor unit detecting a bit error of said electrical signal, said monitor unit comprising counting the number of corrections of said bit error obtained by said control unit, and

means for transmitting supervisory information on said bit error detected to said first terminal device; wherein said control signal is generated in said first terminal device so that said bit error detected is reduced and wherein said control unit controlling said chirp parameter based upon comparing between a first number of corrections of said bit error detected when the chirp parameter is set to a positive value and a second number of corrections of said bit error detected when the chirp parameter is set to a negative value.

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16. (AS THREE TIMES AMENDED) A terminal device comprising:
an optical transmitter outputting an optical signal having a chirping determined by a chirp parameter to an optical fiber transmission line, said optical signal generated by optical modulation based on a modulating signal obtained by adding a redundancy code to a transmission data code;

C3

means for receiving supervisory information on a bit error detected in relation to the optical signal transmitted by said optical fiber transmission line; and

means for controlling said chirp parameter according to said supervisory information so that said bit error detected is reduced, wherein said supervisory information including the number of corrections of said bit error obtained in correcting said bit error of said electrical signal according to said redundancy code and wherein said means for controlling said chirp parameter based upon comparing between a first number of corrections of said bit error detected when the chirp parameter is set to a positive value and a second number of corrections of said bit error detected when the chirp parameter is set to a negative value.